

Healthier Lives—He Oranga Hauora National Science Challenge

Submission to Te Ara Paerangi – Future Pathways consultation

RESEARCH PRIORITIES

The Healthier Lives—He Oranga Hauora National Science Challenge believes there is a strong case for mission-led research funding to remain as part of the overall research eco-system. Ideally, it should be independent of mainstream funding bodies and adequately resourced to achieve the mission.

The structure of National Science Challenges (NSCs), which are led by experienced researchers, offers flexibility, a multi-disciplinary environment and a sense of community which is conducive to collaboration and new ways of thinking.

Healthier Lives has pioneered a mission-led research approach to develop a carefully constructed portfolio of research aimed at eliminating disparities in health outcomes for non-communicable diseases. This has involved commissioning research through innovative, tailored processes, e.g.:

- scoping out community needs, gaps in our knowledge and areas of research strength to prioritise research questions;
- inviting research leaders to build multi-disciplinary, cross-institutional teams, which include opportunities for capacity development for the next generation of Māori and Pacific research leaders, and formally identify stakeholders as co-design partners and/or implementation partners;
- assessing, and assisting in the development of, research proposals through both formative Vision Mātauranga review by community-based stakeholders at a very early stage of research design, and rigorous scientific review of proposals by national and international experts;
- enabling projects to be funded in multiple stages so that preliminary investigative work informs the next stage.

Our experience in commissioning mission-led research suggests the following characteristics should be features of the future research system:

- funding mechanisms that can support authentic co-design of research, which traditional funding mechanisms are not flexible enough to do at present;
- opportunities for researchers to develop meaningful long-term relationships with stakeholders through continuing engagement at multiple levels;
- support for research teams, including offering advice and introductions, bringing researchers and stakeholders together, developing a shared vision, amplifying public communication about the research, and offering small grants to enable particular aspects of research to be taken forward;

- support for practical steps towards the implementation of research, ranging from ensuring that researchers find potential implementation partners at the outset, listing implementation partners in research contracts, proactively disseminating research results, offering small grants that can support the next step towards implementation and creating implementation networks.

There should be opportunities for new national priorities to be identified. We can immediately offer the following suggestions:

- Health research;
- Infrastructure to enable New Zealand’s world-leading health and administrative data to be used as a strategic asset to inform decision-making in the health system;
- Research to support the creation of a national food strategy, which addresses the vital importance of food to health, the environment and the economy.

Priority-setting should be an open, transparent and inclusive process which is responsive to community needs, relevant to policy and practice settings, and informed by knowledge of the national and international research landscape. It should engage researchers, communities and stakeholders in genuine conversations.

Priority-setting should not be a one-off event but the start of a cycle (identifying needs, taking action, evaluating progress, identifying gaps) which is eventually repeated. Stakeholders involved in priority-setting should also be involved at other points along the way.

Meaningful long-term relationships of trust are essential to underpin the process. It is easy to overlook the need to invest time in developing such relationships.

We would like to see a future model of mission-led research which learns from and builds on what NSCs have achieved. Ideally, not only would adequate research funding be wrapped around an identified priority but a potential implementation partner (or partners), with genuine interest in implementing the outcomes of the research, would be involved from the outset and commit resources and funding to this.

TE TIRITI, MĀTAURANGA MĀORI AND MĀORI ASPIRATIONS

Healthier Lives’ experience has demonstrated the importance of engagement with Māori at all levels of the decision-making process. An operational structure of partnership has been created through co-governance, experienced Māori researchers at senior management level, and inclusive decision-making processes. This form of partnership could be effective at scale across the science sector.

To enable and protect mātauranga Māori in the research system, a Tiriti-based approach that includes tino rangatiratanga is essential. Māori must have choices to live as Māori in both the Māori and non-Māori worlds. There should be opportunities for Māori-led research and for Māori and Pākehā to undertake research in partnership. However, the governance and management of Mātauranga needs to be Māori-led at all levels of the science sector from policy to implementation.

Mātauranga may be produced in research partnerships between Māori and non-Māori. Co-designing research between academic researchers (both Māori and non-Māori), Māori service providers and Māori communities is one form of partnership. Healthier Lives NSC is producing a report on the lessons we have learned about co-designing research. It includes a “ladder of integrity” devised by independent Māori researcher Debbie Goodwin, which charts different levels,

from consultation (which is not co-design) to authentic partnerships with shared decision-making and resources (which is a gold standard of co-design). We believe this report, to be released later this year, will be of value to academic researchers and communities interested in engaging in co-design research as well as to research funders.

Some of the lessons we have learned are that co-design can place a burden on Māori communities and, if done poorly, can leave a legacy of distrust and disappointment. It is not a form of research to be undertaken lightly.

Communities that participate in research can become disillusioned when the outcomes of that research cannot be sustained beyond the life of the project, so planning for sustainable implementation from the outset is desirable.

Research involving communities can place a significant burden of work on those communities, much of which is currently undertaken in a voluntary capacity. In future, there needs to be more funding to support this effort.

Authentic co-design requires flexibility on the part of research funders. Communities must have decision-making power in relation to the research question and the conduct of the research. Community service providers (who may be both research partners in their own right and intermediaries to their communities) have accountabilities to their community which may take precedence over research timelines.

Mātauranga Māori that is shared in the course of co-designed research should be received as a taonga for the purposes of the research only. Clauses can be inserted into research contracts to specify this, as is now standard in Healthier Lives and other NSC research contracts.

To undertake co-design with integrity requires additional time and resources beyond those that a similar research project might normally require. Funders need to resource it adequately as part of the research process. However, there are benefits in terms of the outcomes produced, e.g. improved recruitment and retention rates in community-based studies; 'out of the box' research solutions not necessarily considered by academic researchers; the development of capacity and capability in both communities and researchers; the design of interventions that are acceptable to Māori and therefore more likely to be taken up; and communities being more discerning and also less fearful of being involved in future research.

National Science Challenges have had the flexibility to fund genuine co-design but traditional funding mechanisms may struggle to do so at present.

FUNDING

If a base grant funding model were introduced, overhead funding would not follow a research grant as it currently does. The potential of this model to disadvantage community-based research must be carefully considered.

RESEARCH WORKFORCE

There is a crisis in research careers in New Zealand at present. Early and mid-career researchers have no job security and senior researchers spend an inordinate amount of time writing grant applications, not only to further their own research but also to support the salaries and careers of junior colleagues. This is a stressful and wasteful approach. It leads to short-term thinking in

science, ignores the value of scientific achievement made over the course of a whole career, and results in talented researchers leaving research or leaving New Zealand to pursue opportunities elsewhere. In health research, we frequently see the most intelligent postgraduate students opting for a career in medicine rather than research, not because they have an aptitude or particular interest in clinical medicine but because they see no stable career path in research.

Healthier Lives advocates for more fully-funded 5 and 10 year fellowships for emerging researchers, and more opportunities for career researchers. New Zealand used to have many more 5-year research fellowships than it currently does, and these were instrumental in developing important research programmes, e.g. the Dunedin Study. The few opportunities that now remain, such as the Rutherford Fellowship, are often not fully-funded which causes further instability. They are generally only available for early stage, or in a few instances mid-career, researchers with the exception of the sole Heart Foundation Senior Fellowship. This means senior researchers are forced to take part-time, insecure research roles or move into teaching which offers a more secure academic pathway.

Australia has recognised this problem and offers research fellowships for all career stages: [Future Fellowships](#) support mid-career researchers and [Investigator Grants](#) support researchers at all career stages, providing them with “with flexibility to pursue important new research directions as they arise and to form collaborations as needed, rather than being restricted to the scope of a specific research project”.

Māori PhD graduates often face a choice between pursuing a low paid, insecure research career or accepting a better paid, secure job in government or consultancy, which makes it difficult to attract and retain emerging Māori researchers in research careers. Healthier Lives has struggled to fill several PhD opportunities designated for Māori candidates, so the capacity development pipeline is also running dry. A model that worked well to develop brilliant researchers, and which fits well with Māori aspirations, is ‘bonded PhDs’ such as the HRC Girdlers Fellowship which offers the opportunity to study abroad at prestigious research institutions before returning to New Zealand.

Continuity between research contracts is essential if New Zealand is to retain our best researchers, and national research priorities won’t be met unless researchers have more secure career pathways.

Future workforce

The education of the future research workforce is another area that needs attention. It is well recognised, especially in health, that we do not have a workforce that reflects the population it serves. To change this, we need more pathways leading from secondary to tertiary education in the sciences, especially for Māori and Pacific youth as well as young people from low-income families, those living in rural areas and young disabled people. Highly successful programmes such as [Pūhoro STEM](#) help to attract young Māori to consider a career in the sciences and aid their learning by providing tutorial support as well as exposure to opportunities they might not otherwise receive. More programmes like this are needed to widen the river upstream so that our future research workforce will be more diverse. Pūhoro is a traditional marking or tattoo on the thigh of a warrior, representing the engine. The Pūhoro STEM programme helps nurture these engines, the future of Māori research.